What is claimed is:

1.   An arithm tic apparatus for ex cuting arithmetic processing including conditional branches, comprising:

5   a configuration information generation means for dividing said arithmetic processing including conditional branches to first processing of unconditional branches and second processing with conditional branches and generating configuration information in accordance

10   with said first processing of unconditional branches;

a reconfigurable arithmetic means for reconfiguring based on said configuration information and executing said divided first processing of unconditional branches based on arithmetic data; and

15   an arithmetic means for performing said divided second processing with conditional branches, and in accordance with a result of the processing, correcting an arithmetic result of said reconfigurable arithmetic means.

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2.   An arithmetic apparatus as set forth in claim 1, wherein said reconfigurable arithmetic means comprises

a configuration information storing means for storing said configuration information;

25   an arithmetic data storing m ans for storing

said arithm tic data input from outside; and

a plurality of arithmetic l m nts to be reconfigured based on said configuration information.

5   3.   An arithmetic apparatus as set forth in claim 1, wherein said configuration information generation means comprises a dividing means for dividing said arithmetic processing so that frequency of said first processing of unconditional branches becomes higher than 10 frequency of said second processing with conditional branches.

4.   An arithmetic method for performing arithmetic processing including conditional branches, 15 including:

a dividing step for dividing said arithmetic processing including conditional branches to first processing of unconditional branches and second processing with conditional branches;

20   a configuration information generation step for generating configuration information in accordance with said divided first processing of unconditional branches;

a first arithmetic step for reconfiguring 25 bas d on said configuration information and executing

said divided first processing of unconditional branch s

based on arithmetic data; and

a second arithmetic step for performing

divided second processing with conditional branches and,

5   in accordance with a result of the processing, correcting

an arithmetic result of said first arithmetic step.

5.   An arithmetic method as set forth in claim 4,

wherein said arithmetic processing is divided in said

10   dividing step so that frequency of said first processing

of unconditional branches becomes higher than frequency

of said second processing with conditional branches.

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